

METHOD OF MANUFACTURING AND STRUCTURE OF  
SEMICONDUCTOR DEVICE WITH FLOATING RING STRUCTURE

ABSTRACT

5       A high voltage semiconductor device includes a drain region disposed within a semiconductor substrate. The semiconductor device further includes a field oxide layer disposed outwardly from the drain region of the semiconductor substrate. The semiconductor device also  
10      includes a floating ring structure disposed inwardly from at least a portion of the field oxide layer. In one particular embodiment, a device parameter degradation associated with the semiconductor device comprises one (1) percent or less after approximately five hundred  
15      (500) seconds of accelerated lifetime operation.